

Amendments to the Specification

Page 1, please replace the paragraphs spanning line 26 through page 2, line 27 with the following rewritten paragraphs:

As a typical biosensor chip having such a surface, BIACORE[®] available from Amersham Pharmacia Biotech., Inc. can be named. In BIACORE[®], semi-transparent matrix of dextran with carboxylated end is immobilized on a thin gold membrane. More specifically, it provides a biosensor chip formed by the steps of: linking organic molecules expressed by a formula HS-R-Y (wherein R stands for a hydrocarbon chain having a chain length exceeding ten atoms and which may be interrupted with hetero atom(s), and Y stands for a ligand or an active group for covalently bonding a biocompatible porous matrix thereto) onto a thin membrane surface of a free electron metal such as gold, silver or the like via the thiol (or mercapto) groups therein, whereby covering said surface with a close-packed monolayer thereof, and thereafter covalently bonding to the surface hydrogel as said biocompatible porous matrix, said hydrogel comprising agarose, dextran, polyethylene glycol and the like which may have functional group(s) for linking to the ligand (see, e.g., U. S. Patent 5,763,191; 5,242,828). In occasions of detecting a biological substance such as protein on such a biosensor chip, a fixed amplification of SPR signal and prevention of non-specific adsorption are achieved.

Also mainly for the purpose of preventing non-specific adsorption of impurities which are present in biological fluids or the like onto sensor chip surfaces, in occasions of quantifying intended analyte proteins or the like, there has been provided a sensor ship having a surface formed of a spacer molecule (C₁ – C₃₀ alkylene chain) which links onto the support via a sulfur atom (of mercapto group) and to which covalently bonded are, by order, a hydrophilic linker (a straight chain molecule of 4 to 15 atoms in chain length) and a solid phase reactant (biotin derivative residue) (see, e.g., U. S. Patent 3,071,823; 5,763,191). Also provided are sensor chips having a self-assembled monolayer linked onto a golden surface via mercapto groups, using a compound based on HS-spacer

molecule (C₁₁ alkylene chain)-hydrophilic linker (a chain composed of 3 or 6 ethylene oxide units) (see for example, Roberts et al., J. Am Chem. Soc., 1998, 120, 6548 – 6555). Still another proposal was made for a sensor chip having a surface carrying heterotelechelic polymer whose ethylene oxide units are within a range of 5 – 10,000 (see WO 01/86301 A1).